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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,764	03/22/2004	Walter E. Butterfield	3073-02	2439

37101 7590 08/26/2005

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EXAMINER

VALENTI, ANDREA M

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/806,764

Applicant(s)

BUTTERFIELD ET AL.

Examiner

Andrea M. Valenti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains: Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,255,896 to Carl in view of U.S. Patent No. 6,615,542 to Ware.

Regarding Claims 1 and 7, Carl teaches a plant growth system and method comprising: a reservoir (Carl #32); a Pump (Carl #34); a volume of liquid based nutrient composition; a plurality of stacked independent growing chambers (Carl #15) arranged in a planar array each of said growing chambers comprising a container (Carl #20) portion with a base and sides, an inflow/outflow gate (Carl Fig.2 coming from pump #34) accommodated in the base of said container portion, an overflow gate (Carl #28 and 52) accommodated within said container portion; and drainage plumbing (Carl #38) connecting said container portion with said reservoir; wherein each of said growing chambers accommodates one or more plant holding containers (Carl #20); and wherein when said pump is activated, said pump transports said nutrient composition from the reservoir through the inflow/outflow gate into said growing chambers; and wherein when one of said growing chambers becomes flooded to the level of said overflow gate, said overflowing nutrient composition is returned to said reservoir via said drainage plumbing, and wherein when said pump is deactivated, said nutrient composition

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remaining in each growing chamber returns to the reservoir via the inflow/outflow gate (Carl Fig. 2).

Carl is silent on the overflow gate being a height adjustable overflow gate. However, it would have been obvious to one of ordinary skill in the art to modify the teachings of Carl at the time of the invention to accommodate different plant variety water needs and the size of the root system. [*In re Stevens*, 212 F.2d 197, 198, 101 USPQ 284, 285 (CCPA 1954)].

Carl as modified is silent on a vertically positioned source of light and the chambers arranged around the light source. However, Ware teaches a hydroponic system in which the growth chambers are positioned around a vertical light source (Ware Fig. 3 #44). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Carl with the light source teachings of Ware at the time of the invention since a light source is an old and notoriously well-known means for promoting plant growth configured in a spaced efficient configuration.

Regarding Claims 2 and 8, Carl as modified teaches a plurality of said vertically positioned sources of light (Ware Fig. 3 #44).

Regarding Claims 3 and 9, Carl as modified teaches PVC, but is silent on polyethylene. However, Ware teaches polyethylene material (Ware Col. 7 line 35). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Carl at the time of the invention since the modification is merely the selection of a known material for intended use, selected as an alternate equivalent

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plastic selected for the advantage of availability of raw materials or cost [Leshin 125 USPQ 416].

Regarding Claims 4 and 10, Carl as modified teaches a plurality of inflow/outflow gates (Carl Fig. 2 middle element #15 has a inflow/outflow gate #28 and bottom element #15 has an inflow/outflow gate #30).

Regarding Claims 5 and 11, Carl as modified teaches a plurality of overflow gates (Carl Fig. 2 top element #15 overflow #52 in #28; middles element #15 is #52 in #30; and bottom element #15 is #52 in #38).

Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,255,896 to Carl in view of U.S. Patent No. 6,615,542 to Ware as applied to claim 1 and 7 above, and further in view of U.S. Patent No. 4,006,559 to Carylon.

Regarding Claims 6 and 12, Carl as modified is silent on the pump is activated and deactivated by a timer. However, Carylon teaches an irrigation system with a pump and timer (Carylon Fig. 1 #82). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Carl with the teachings of Carylon at the time of the invention for the labor efficient advantage of the system being self-operating.

### ***Response to Arguments***

Applicant's arguments, see page 7 of 15, last paragraph, filed 21 June 2005, with respect to the rejection(s) of claim(s) 1, 2, 4-12 under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent JP 06038643 to Iwamura have been fully

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considered and are persuasive. Therefore, the rejection has been withdrawn.

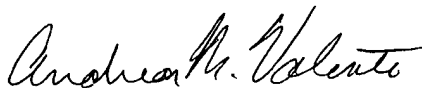
However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 4,255,896 to Carl.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 571-272-6895. The examiner can normally be reached on 7:00am-5:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Andrea M. Valenti  
Patent Examiner  
Art Unit 3643

22 August 2005